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**GUIDANCE TO SOLID WASTE DISPOSAL FACILITIES FOR IMPLEMENTATION
OF BANS RELATIVE TO THE DISPOSAL OF LEAVES, WHITE GOODS
AND RESTRICTION ON THE DISPOSAL OF WHOLE TIRES**

**GUIDANCE DOCUMENT # 6¹
JULY 1991**

I. Background

In accordance with provisions and the timetable set forth in DEP's recently promulgated solid waste facility regulations, (General Requirements, Procedures and Permits for Solid Waste Management Facilities, 310 CMR 19.00 - PART I), disposal of leaves and white goods in Massachusetts solid waste landfills and incinerators is prohibited as of December 31, 1991. Tire disposal may continue in solid waste incinerators, but tires may be disposed in landfills only if they are shredded. These regulations do not prohibit the receipt of the banned or restricted materials by facility operators for the purposes of recycling, composting or, in the case of tires, other diversion programs. In fact, those activities are encouraged.

This document is intended to provide guidance to operators of landfills and incinerators regarding the development of acceptable compliance plans for restricting the disposal of the above materials. The Waste Control provisions of the regulations (310 CMR 19.017) require that the facility operator submit a plan to the Department which describes the actions to be taken to achieve effective compliance with the disposal ban/restriction.

Facility inspection and waste monitoring activity to prevent disposal of whole tires and white goods should be relatively simple to plan and implement. Both are easily detected during waste-load inspections. In addition, in contrast to leaves which may be bagged and look like other waste, white goods and tires on top of piles are easy to distinguish and should be culled from waste piles in the event that they are not initially detected in waste-loads during or between inspections.

For leaves a more intensive schedule of waste load inspections is needed during a period of approximately four months each year. For those facilities whose waste suppliers

¹ This is the 6th document issued by DSWM to provide guidance on implementation of the solid waste facility regulations, 310 CMR 19.000. Previously issued documents are numbered based upon date of release and will hereafter be referenced as follows:

Battery Ban:	DSWM Guidance SWM-1-10/90
Existing Facility Permitting:	DSWM Guidance SWM-2-4/91
Landfill Assessment & Cleanup:	DSWM Guidance SWM-3-4/91
Financial Assurance Requirements:	DSWM Guidance SWM-4-4/91
25% Recycling Requirement:	DSWM Guidance SWM-5-4/91

Subsequent guidance documents will be numbered consecutively.

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have not implemented leaf composting programs with high levels of participation and/or have not effectively halted the pick-up of leaves (or their deposition at transfer stations), waste deliveries need to be inspected to prevent significant quantities of leaves from being burned or buried.

Ash landfills are the single category of disposal facility exempt from the requirement to file a compliance plan for tires, white goods and leaves. Acceptable compliance plans from the combustion facilities which generate the ash going to these landfills will satisfy the purposes of the Waste Control provisions for those facilities. In the absence of compliance plans, C&D landfills are likely recipients of leaves, and even more likely, tires and white goods.

II. Overview of Waste Ban Program Provisions

A. State Purpose in Restricting the Disposal of Leaves, Whole Tires and White Goods

In its decision to restrict the disposal of leaves, whole tires, white goods and other materials covered by 310 CMR 19.017., the DEP has been guided by the Massachusetts Solid Waste Master Plan's integrated solid waste management policy. This policy defines a hierarchy of waste management methods which the Department adopted both to protect the public health and environment, and to preserve existing and planned waste disposal capacity. The hierarchy specifies that the Commonwealth's preferred waste management approaches are source reduction, recycling and composting. Department research and analysis indicates that it is not only technically feasible, but in most cases it is also economically advantageous to compost versus dispose of leaves, to recycle versus dispose of white goods and to shred tires prior to landfilling.

B. Restricted Material Addressed by this Guidance

Leaves: including both deciduous and coniferous;

Whole tires: from motor vehicles of all types. Shredded tires may be landfilled. A shredded tire is a tire which has been cut, sliced or ground into four or more pieces such that the circular form of the tire has been eliminated;

White Goods: large appliances including: refrigerators, freezers, dish washers, clothes washers, clothes dryers, gas or electric ovens and ranges, and hot water heaters, .

C. Solid Waste Facilities Subject to the Bans on Leaves and White Goods and Disposal Restrictions on Whole Tires

Existing and proposed solid waste disposal facilities including landfills (except dedicated, ash landfills), incinerators and waste-to-energy facilities; both privately and publicly owned facilities. Note that only landfills are required to prohibit the disposal of whole tires. There is no regulatory prohibition against the disposal of tires in combustion facilities.

D. Effective Date for Implementation of Disposal Bans

December 31, 1991.

E. Deadline for Facility Operator Submission of Compliance Plans

<u>Facility Size</u> ¹		<u>Compliance Plan Submission Deadline</u>		
>1000	TPD ²	Monday	-	September 2, 1991
500-999	TPD	Monday	-	September 2, 1991
300-499	TPD	Wednesday	-	October 2, 1991
100-299	TPD	Friday	-	November 1, 1991
<100	TPD	Monday	-	December 2, 1991

1 - TPD = Tons Per Day as per an Department approved operating plan or as proposed in a new facility permit application.

2 - The due date for compliance plans by >1,000 TPD facilities has been set back to 120 days before the 12/31/91 effective date for these bans.

F. Components of an Adequate Facility Compliance Plan

- (i) The General Requirements section of this guidance details those elements which should be addressed in all compliance plans. In addition, each facility compliance plan should incorporate the components of one of the two compliance plan options summarized below and detailed in Sections IV and V of this document - the Recycling/Diversion Plan or the Inspection Plan;
- (ii) Option A, the Recycling/Diversion Plan, emphasizes the responsibility and the initiative of the facility operator to provide positive and effective recycling services to its waste suppliers (or in the case of tires, other non-recycling diversion services). An acceptable Recycling/Diversion Plan will demonstrate that arrangements

which effectively divert banned/restricted materials generated by waste suppliers, have been or will be instituted. DEP seeks to encourage the positive recycling approach by waiving waste-load inspection requirements for those facilities proposing an acceptable Option A type compliance plan; or

- (iii) Option B, the Inspection Plan, stresses the responsibility and vigilance of the operator in informing waste generators and waste suppliers that leaves, white goods and whole tires (landfills only) will not be accepted, at the facility. Under the Inspection Plan, the operator should maintain an inspection program designed to keep banned/restricted materials out of the disposal area. Banned/restricted materials discovered in incoming waste loads and not returned to the generator become the responsibility of the facility operator to divert (or shred in the case of tires).

III. General Requirements for All Compliance Plans

- (a) Describe present facility operations including:
- (i) types of waste accepted/excluded and procedures employed to hold waste suppliers accountable for violations (document exclusions via contracts or facility rules and regulations);
 - (ii) waste sources by type of source (residential, institutional, commercial, demolition/ construction) and quantity delivered per year;
 - (iii) breakdown of type and number of vehicles entering the facility on an typical day of operations;
 - (iv) receiving method for incoming waste;
 - (v) current procedure for management of any leaves, white goods or whole tires received;
 - (vi) current monitoring or inspection program for excluded wastes;
- (b) Provide and document written notice to contracted and regular waste suppliers that the facility will not accept leaves, white goods or whole tires (landfills only) mixed with solid waste (operators must submit and provide information required by Form 19.017A to DEP in order to satisfy this notification requirement);

- (c) Install and submit to DEP certification of installation of appropriate signage at facility entrance and at waste receiving area informing facility users of prohibition against disposal of leaves, white goods and whole tires (landfills only);
- (d) Provide to the Department a copy of the written instructions which will be distributed to the facility operations staff in advance of the ban dates regarding procedures to be employed for implementation of the proposed plan;
- (e) Describe proposed procedures for holding waste suppliers accountable for violations of ban on mixing of leaves, white goods and whole tires (landfills only) for disposal with solid waste;
- (f) By February 1, 1993, provide the Department with a summary report on activities under the facility's approved compliance plan: and, thereafter, annually, on or before August 1 of each year, covering the preceding Fiscal Year. Such reports should be coordinated with Reports under the Twenty-Five Percent Recycling Requirement (See, Guidance - 25% Recycling, June 10, 1991, Section XI). All such reports shall be certified in accordance with 310 CMR 19.011.

In addition to addressing the General Components listed above, each facility compliance plan must incorporate the specific components of either Option A or Option B below.

IV. Option A - Recycling/Diversion Plan Components

DEP's objective in establishing the Recycling/Diversion Plan components listed below is to ensure that, in the absence of a waste load inspection program at the disposal facility, the proposed recycling program or services will provide systematic and effective diversion of the restricted material from disposal. The recommended components for the Recycling Plan option are listed below for each banned material. Different plan components are listed according to whether the disposal facility is a regional facility (publicly or privately owned) or a local facility serving a single municipal jurisdiction.

For regional disposal facilities, a Recycling/Diversion Plan should incorporate practical and accessible arrangements for the collection and/or processing and marketing or alternative disposal of restricted materials from municipal and commercial waste sources. Such arrangements may take the form of collection, processing or marketing services provided by the

facility operator under an agreement with waste suppliers. Alternatively, these arrangements may take the form of services initiated and managed by the waste suppliers on their own behalf and merely documented by the disposal facility operator.

A. Restricted Material - Whole Tires Disposed in Landfills

(1) Single-Municipality Landfills - Describe and Document:

- (a) Municipal by-law, ordinance or executive order and/or contract provisions in the case of a service contract for curbside collection, which require separation of whole-tires from refuse, or prohibit their pick-up in curbside solid waste collection programs. For municipal waste drop-off programs, a municipal by-law, ordinance or executive order which requires source separation of whole tires or prohibits their deposition at drop-off facilities;

and (if tires are not prohibited but are being handled as a source separated item)

- (b) either a plan for a tire shredding operation, or, a plan for whole tire storage² and contractor removal.

(2) Regional Landfills - Describe and Document:

- (a) Written agreements with waste suppliers (municipalities and commercial waste haulers) under which the facility operator will receive deliveries of segregated whole tires;

and

- (b) either a plan for a tire shredding operation, or, a plan for whole tire storage and contractor removal, or demonstration of a campaign to educate residents of the disposal restrictions and of individual responsibility and options for proper disposal/recycling of tires.

B. Restricted Material - White Goods Disposed in Landfills or Incinerators

(1) Single-Municipality Disposal Facilities - Describe and Document:

2 For rules on stockpiling and storage, see DSWM Policy SWM-5 (1987).

- (a) Same as Tire provision, A.(1)(a), above;

and

- (b) a contract or other agreement with a white goods processing/recycling company to periodically remove or accept white goods for recycling or demonstration of a campaign to educate residents of the disposal restrictions and individual responsibility and options for proper management of white goods.

(2) Regional Disposal Facilities - Describe and Document:

- (a) Existing white goods recycling programs for all waste suppliers, including elements under B(1) "Single-Municipality Disposal Facilities";

or

- (b) a proposed plan for all waste suppliers to divert white goods by December 31, 1991, including letters from waste suppliers indicating participation in such a cooperative program;

or

- (c) (i) a plan for an on-site white goods receiving and storage area;

and

- (ii) written agreements with all waste suppliers (municipalities and commercial waste haulers) to receive shipments of segregated white goods for recycling;

and

- (iii) a contract or other agreement with a white goods processing/recycling company to periodically remove or accept white goods for recycling.

C. Restricted Material - Leaves Disposed in Landfills or Incinerators

(1) Single-Municipality Disposal Facilities - Describe and Document:

- (a) Same as Tire provision, A.(1)(a), above;

- (b) leaf composting facility registration filed and approved by DEP, and demonstration of a campaign educating residents of the ban on leaf disposal and the availability of municipal composting or backyard composting options.

(2) Regional Disposal Facilities - Describe and Document:

- (a) Existing leaf composting programs for all waste suppliers, likely to be generating yard & leaf waste including elements under C(1) "Single-Municipality Disposal Facilities";

or

- (b) a proposed plan for all waste suppliers likely to be generating yard & leaf waste to be composting leaves by December 31, 1991³, including letters from waste

suppliers indicating participation in such a cooperative program;

or

- (c) (i) the development of a registered leaf composting operation on-site of the operator's facility;

and

- (ii) executed, written agreements with all non-composting waste suppliers (generating yard & leaf waste) indicating that the facility operator will receive and compost their leaves or arrangements to divert leaves through a third party.

V. Option B - Inspection Plan Components

Inspection plans should address incoming waste-load inspection **and** ongoing monitoring of materials that have been tipped. The objective is to prevent the disposal of all restricted materials which can be reasonably detected and diverted.

The inspection program for incoming waste-loads should demonstrate to all facility waste suppliers the serious

³ While the regulation bans materials as of December 31, leaves generated during the fall of 1991 may be disposed. As a practical matter, the impact of the leaf ban will begin during spring of 1992.

intention of the operator to prohibit (in accordance with CMR 19.017) the delivery of restricted materials mixed with solid waste. The timing, ongoing visibility and enforcement aspects of the waste-load inspection program are key factors for its effectiveness. The more visible and rigorous the inspection program, the less operator attention and effort need be directed to the second phase, post-delivery waste stream monitoring. Waste-load inspections will be most effective where they target deliveries from waste suppliers which are either not conducting recycling programs for restricted materials or are not prohibiting their collection.

Ongoing waste stream monitoring should provide assurance that restricted materials delivered to the facility and not diverted through the waste-load inspection program, but which are observable through tipping area monitoring, will be detected and recovered before burial or combustion. The Department recognizes that, in most situations, this waste stream monitoring and recovery is practical for whole tires and white goods and impractical for leaves.

A. Adequacy Criteria For Waste-Load Inspection Programs:

- (i) **Criterion** - Waste-loads designated for inspection should be spread out in a manner that will allow operator personnel to identify restricted materials.

Rationale - Inspections of waste-loads for restricted materials cannot be adequately conducted until the waste has been off-loaded and the tipped waste pile reduced to a depth which allows it contents to be observed.

- (ii) **Criterion** - Haulers should be notified that they will be subject to spot checks but they should not receive advance notification of the operator's specific waste-load inspection schedule.

Rationale - Where waste suppliers become informed of waste-load inspection schedules at the disposal facility, they may conduct piecemeal efforts to clean up their loads or attempt to avoid delivering to the facility at inspection times rather than make systematic efforts to comply with the waste restrictions.

- (iii) **Criterion** - Waste-load inspections should be conducted with such a frequency (relative to the number of days and number of vehicle loads inspected) as to offer a reasonable likelihood of diligence by waste suppliers in preventing the mix of restricted materials with solid waste. Waste-load inspections for leaves should be conducted regularly during the leaf deposition/collection seasons - October 15 to December 15, and, March 15 to May 15. "Regularly" shall mean at least every other day, or weekly, depending upon the size of the facility, the number of operating days per week and the percentage of facility waste suppliers participating in or conducting leaf composting programs. Waste-load inspections for white goods and whole tires should occur throughout the year but may be conducted with less frequency than the inspections for leaves during the leaf deposition/collection seasons.

Rationale - Leaves, white goods and whole tires must be segregated from waste headed for burial or combustion. The most effective method for preventing the mixing of these materials with waste headed for burial or combustion is to ensure that they are never collected with solid waste. Efforts to educate waste suppliers about the waste restrictions have the potential to gain the cooperation of the majority. Some parties will only be reached, and their actions changed, through waste-load inspection programs. Given the concentrated time period during which leaves are generated and collected, it is appropriate to focus and intensify waste-load inspection activities during this period.

- (iv) **Criterion** - The waste-load inspection program should be strategically designed to target those waste suppliers who are likely to be non-compliers, e.g., haulers from communities without leaf composting programs or by-laws prohibiting leaf collection.

Rationale - Facility operators are normally aware of the practices and attitudes of their regular waste suppliers. In addition, the operator should be in possession of information on recycling/composting efforts in many of the municipal jurisdictions from which the facility's waste originates. Where the operator uses the above information to assist in selecting waste-loads for inspection, the facility's inspection program is likely to be more cost-effective and less bothersome for waste suppliers that are already in compliance. For example, a community with a comprehensive leaf pick-up program during peak season would be a poor candidate for inspection.

B. Waste Stream Disposal Monitoring Procedures

Describe and explain ongoing monitoring procedures directed toward spotting and recovering restricted materials in the facility disposal stream. This is the waste stream subsequent to delivery and prior to burial or combustion. The proposed program or procedures should incorporate a reasonable effort by the operator to capture restricted materials that may have eluded detection between or during waste-load inspection activities.

C. Inspection Program Record-Keeping and Reporting

Maintain records on inspection program activities including: date of inspection; number of tons or cubic yards of solid waste received on inspection day; transporter's name, address and phone number for each load inspected; and the quantity of banned materials found, retained by the operator for recycling (or shredding in the case of tires) or rejected and returned to the transporter. The above inspection program data shall be attached to the comprehensive facility inspection report covering the period in which the inspection took place. In addition, these inspection program data shall be summarized and incorporated within the facility's annual compliance plan activity report under III (f) above.

VI. Department Enforcement of Waste Control Regulations

(a) Facility Documentation of Compliance Plan Implementation

Enforcement of CMR 19.00's Waste Control provisions will occur through Department efforts to ensure that a facility's approved compliance plan is fully implemented. Determinations of whether a facility has fully implemented its approved compliance plan will be based on two types of documentation provided by the facility operator. First, documentation provided at the time of compliance plan submission addresses: installation of signage, written notification to waste suppliers, written operating procedures and existing operational data such as sources and quantities of waste, current monitoring and inspection procedures for excluded wastes and current receiving method for incoming waste. Second, the Department will

periodically review ongoing documentation by facilities of inspection program activities as required by section V (f) above - including the annual facility report on compliance plan activities.

(b) Department Spot Checks of Facility Inspection Program

In accordance with 310 CMR 19.007 the Department may from time to time and without prior notice make examinations and evaluations of solid waste management facilities to determine and enforce compliance with these regulations. In addition, records which facilities are required to maintain on their waste load inspection program will supply the Department with the means to independently corroborate facility inspection activities.

(c) De Minimus Quantity Allowances

As per section (7) of CMR 19.017, the Department may allow de minimus quantities of restricted materials, as determined by the Department, to be disposed at solid waste disposal facilities.

- (d) Where Department inspection personnel determine that a disposal facility has disposed of restricted materials in excess of de minimus, but has implemented its approved compliance plan the Department may, in lieu of an enforcement action, require the submission of a modified compliance plan which could call for a more aggressive inspection program, more effective recycling or diversion plans or additional notification to suppliers.

ATTACHMENT B

Massachusetts Registered Leaf Composting Operations as of 7/15/91

- | | |
|------------------------------------|--|
| 1. Acton | 57. Ipswich (Appleton Farms) |
| 2. (Acushnet) * | 58. Kingston (O'Donnell Sand and Gravel) |
| 3. (Adams) * | 59. Kingston (municipality) |
| 4. Amherst | 60. Lawrence |
| 5. Andover | 61. Littleton (Cataldo Nursery) |
| 6. Attleboro | 62. Longmeadow (leaves disked into farmland) |
| 7. Auburn | 63. Lowell |
| 8. Avon | 64. Ludlow |
| 9. Barnstable (Cape Resources Co.) | 65. MDC - Randolph, Stoneham |
| 10. Barnstable (municipality) | 66. Mansfield |
| 11. Belchertown | 67. Marion |
| 12. Bellingham | 68. Mashpee |
| 13. Beverly | 69. Mattapoisett |
| 14. Blackstone | 70. Maynard |
| 15. Boston | 71. Melrose |
| 16. Bourne | 72. Methuen |
| 17. Braintree | 73. Millis |
| 18. Bridgewater | 74. Milton |
| 19. Brockton | 75. Montague |
| 20. Chatham | 76. Nahant |
| 21. Chelmsford | 77. (Nantucket) * |
| 22. Chicopee | 78. Natick |
| 23. Cohasset | 79. Needham |
| 24. Concord | 80. New Bedford |
| 25. Dalton | 81. Newburyport |
| 26. Danvers | 82. Newton |
| 27. Dartmouth | 83. N. Andover |
| 28. Dighton | 84. N. Attleboro |
| 29. Dudley | 85. Northampton |
| 30. Duxbury | 86. Northbridge |
| 31. (E. Bridgewater - BFI) * | 87. N. Reading |
| 32. E. Brookfield | 88. Norwood |
| 33. E. Longmeadow | 89. Orleans |
| 34. Easthampton | 90. Oxford |
| 35. Easton | 91. (Peabody) * |
| 36. Erving | 92. (Pepperell) * |
| 37. Fairhaven | 93. Pittsfield (VICON) |
| 38. Fall River (BFI) | 94. Plainville - Laidlaw |
| 39. Falmouth | 95. Quincy |
| 40. Fitchburg | 96. Randolph (BFI) |
| 41. Foxboro | 97. Raynham |
| 42. Framingham | 98. Reading |
| 43. Framingham (YARR Corp.) | 99. Rehoboth (Fine Tree Farm) |
| 44. Franklin | 100. Russell |
| 45. Ft. Devens (U.S. Army Base) | 101. Sandwich |
| 46. Gardner/Templeton | 102. Saugus |
| 47. Gloucester | 103. Seekonk |
| 48. Granby | 104. Sharon |
| 49. Greenfield | 105. Shirley |
| 50. Harwich | 106. (Shrewsbury) * |
| 51. (Hatfield) * | 107. Somerset |
| 52. Hingham | 108. Southampton |
| 53. Holden | 109. Spencer |
| 54. Holliston | 110. Springfield |
| 55. Holyoke | |
| 56. Hopkinton (Weston Nurseries) | |

Registered Communities page 2

111. Sterling
112. Sturbridge
113. Sudbury
114. Swampscott Landscapers
115. Taunton
116. Templeton (with Gardner)
117. Tewksbury
118. Uxbridge
119. Wakefield
120. Walpole
121. Wayland
122. Webster
123. Wellesley
124. Westboro
125. Westfield
126. Westford (Laughton's Nursery)
127. Weston
128. Westwood
129. Weymouth
130. Wilbraham
131. (Williamstown) *
132. Wilmington
133. (Woburn) *
134. Worcester
135. Wrentham
136. Yarmouth

+ Approximately 25 communities with composting operations have yet to register.

*Note: communities in parentheses are not yet composting